



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/196,680	11/20/1998	STEPHEN J. MEYER	16114:E (-8002.US00)	9428
60708 7590 06/08/2011 FOR: TYCO FIRE PROTECTION PRODUCTS PERKINS COIE LLP 700 Thirteenth Street, NW Suite 600 Washington, DC 20005-3960				
EXAMINER KIM, CHRISTOPHER S				
ART UNIT 3752		PAPER NUMBER		
NOTIFICATION DATE 06/08/2011		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

TFSBP@perkinscoie.com
patentprocurement@perkinscoie.com
ipcorrespondence@tycofp.com

Office Action Summary

Application No.

09/196,680

Applicant(s)

MEYER ET AL.

Examiner

CHRISTOPHER KIM

Art Unit

3752

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14, 15, 20-66 and 68-74 is/are pending in the application.
- 4a) Of the above claim(s) 55-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15, 20-54, 62-66 and 68-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 22, 2011 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 64-66, 68-74 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 64 recites the limitation "the body having a knuckle spaced from the outlet" in line 4. The specification discloses, on page 4, lines 15-16, "Frame 11 includes a generally tubular body 12 and an adjoining yoke indicated generally 20." The specification further discloses, on page 7, line 22 through page 8, line 2, "Deflector 40 is

supported from the frame 11 integrally secured with the frame, by being mounted over a boss 26b provided at the extreme axial end of the knuckle 26 at the end of yoke 20."

The specification teaches that the yoke 20 has the knuckle 26. The specification fails to teach the body 12 having a knuckle.

4. Claims 1-11, 14, 15, 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "a face portion having a perimeter and consisting of a single opening within the perimeter...the face portion further including..." The claim utilizes open ended transitional phrases, e.g., "having" and "including," and close ended transitional phrase, e.g., "consisting."

Claim Rejections - 35 USC § 103

5. Claims 1-11, 14, 15, 20-54, 62-66, 68-74 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosio et al. (5,727,737) in view of Tramm (5,810,263) and Fischer (4,296,816).

Bosio discloses a sprinkler comprising:

a generally tubular body 11;

a closure 19;

a trigger 18;

a deflector 17 including:

a first arm 22;

- a second arm 23;
- a generally planar face portion 20 having:
 - a perimeter (perimeter of face portion 20)
 - a single opening (occupied by boss 16);
 - an upper edge 28-29;
 - a lower edge (most bottom edge of face portion 20);
- a canopy portion 21 spaced from the upper edge 28-29 so as to define a single opening 27.

Bosio cites, in column 1, lines 8-10, Fischer U.S. Pat. No. 4,296,816.

Fischer teaches a spray pattern of droplets dispersed over a generally horizontal, rectangularly-shaped coverage area (see figures 1 and 6). The coverage area may be up to 16 ft x 24 ft (see column 3 lines 55-58).

Tramm discloses, in column 5, lines 12-14, a horizontal-type fire protection sprinkler having a K-factor of at least 3.5, or at least 5.0, or at least 7.0, or at least 10.5, or at least 13.0. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided the sprinkler of Bosio with the range of K-factors (greater than 9) as taught by Tramm to provide a specific flow rate depending on pressure.

Functional recitations have been considered to merely require the ability to perform. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. MPEP 2114.

Response to Arguments

6. Applicant's arguments filed March 22, 2011 have been fully considered but they are not persuasive.

Applicant argues that Fischer does not show a face portion having an opening consisting of a circular opening. Fischer shows a face portion 36 having an opening consisting of a circular opening (circular opening in hub 60).

Applicant argues that the applied references do not show an upper edge and a lower edge. Bosio discloses an upper edge 28-29 and a lower edge (most bottom edge of face portion 20) below an imaginary horizontal plane (plane having arms 14, 15). Lower edge (most bottom edge of face portion 20) is most remotely below the horizontal plane.

Applicant's arguments are directed to Tramm and Fischer. The primary reference of the rejection under 35 U.S.C. 103 is Bosio.

Applicant argues that claims 20-54 and 63 are not undue multiplicity of claims 1-11, 14, 15 and 62 because claims 1 recites "a single opening within the perimeter axially aligned with the center axis" that is not required by claims 20-54 and 63. More than one claim may be presented provided they differ substantially from each other and are not unduly multiplied. 37 CFR 1.75. The recitation "a single opening within the perimeter axially aligned with the center axis" is not a substantial difference. The feature is not the basis for novelty or unobviousness. Every cited prior art possesses a single opening that is axially aligned with the center axis. The opening is used to mount the deflector

Art Unit: 3752

onto the yoke knuckle. Following is the pendency history of the claims throughout prosecution:

November 20, 1998 :	Claims 1-19 (Originally filed)	
May 3, 1999 :	Claims 17-19 canceled	
August 29, 2001 :		Claims 20-23 added
May 29, 2002 :	Claim 16 canceled	Claim 24 added
July 29, 2002 :		Claims 25-61 added
August 27, 2002 :	Claims 55-61 withdrawn from consideration	
February 24, 2003 :	Claims 12, 13 canceled	Claim 62 added
August 10, 2005		Claim 63 added
June 12, 2006		Claims 64-74 added
March 22, 2011	Claim 67 canceled	

The current status of the claims is as follows:

Currently pending :	Claims 1-11, 14, 15, 20-66 and 68-74
Withdrawn :	Claims 55-61
Rejected :	Claims 1-11, 14, 15, 20-54, 62-66, 68-74

The claims 20-52, 63-66 and 68-74 are repetitive and **do not differ substantially** from claims 1-11, 14, 15 and 62, particularly, the independent claims. Added claims 20-52, 63-66 and 68-74 represent an unreasonable number of claims for which the net result is to confuse rather than to clarify. It is uncertain how the explosive increase in the number of claims reduces the issues.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KIM whose telephone number is (571)272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Christopher S. Kim/
Primary Examiner, Art Unit 3752

CK